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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,084	01/28/2004	Juraj Krajci	10562-32US CMB/clb	9770

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EXAMINER

FRANK, RODNEY T

ART UNIT PAPER NUMBER

2856

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/765,084	KRAJCI, JURAJ	
	Examiner	Art Unit	
	Rodney T. Frank	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claims 3-6 in the reply filed on 23 June 2005 is acknowledged.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chian et al. (U.S. Patent Application Publication Number 2004/0176859; hereinafter referred to as Chian), and further in view of Kobayashi et al. (U.S. Patent Number 4,032, 286; hereinafter referred to as Kobayashi). Chian discloses system in accordance with the invention includes a power converter for converting a thermally generated voltage where the power converter includes a low-voltage direct current to direct current voltage converter (DC-DC converter) and a high-efficiency DC-DC converter coupled with the low-voltage DC-DC converter. The system also includes a charge storage circuit coupled with the low-voltage DC-DC converter and the high-efficiency DC-DC converter for storing converted electrical energy and a programmable controller circuit. The programmable controller circuit is coupled with the high-efficiency DC-DC converter, the low-voltage DC-DC converter, and the charge storage circuit such that the controller circuit substantially controls operation of the system when the

voltage potential of the converted electrical energy stored by the charge storage circuit is greater than a brown out voltage of the controller (Please see the Abstract).

In reference to claims 3 and 5, Chian discloses, as the title suggests, a method and apparatus for power management whereby electrical power is obtained from a thermoelectric device (210) and converted via a voltage regulator (230) to eventually power a sensor (280). Chian does not disclose, however, that the type of sensor powered is a gas sensor, as in the claim language. However, Kobayashi addresses this possibility.

Kobayashi discloses a gas combustion device with a safety device including a combustible gas sensor which consists of an oxygen concentration cell comprising a calcined solid ion conductive electrolyte material and porous electrodes attached to both the major surfaces of the electrolyte material. The safety valve is operated in response to both outputs from the combustible gas sensor and from a pilot burner sensor including a thermocouple or the like. When the carbon monoxide content is increased, the safety valve is automatically closed, thereby interrupting the supply of gas and consequently preventing carbon monoxide poisoning and/or gas explosion (Please see the abstract).

Column 2, lines 30-43 disclose that Kobayashi is concerned with in providing a gas combustion device with a safety device that includes a thermocouple sensor and a gas sensor. The motivation to combine the two references can also be found in this section of Kobayashi and in paragraph {0021} of Chian. Paragraph [0021] of Chian discloses that the sensor types may be a thermocouple/thermistor, which can sense

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water in a storage tank and compare the information to a threshold set via a controller. Kobayashi discloses the use of a thermocouple sensor and gas sensor in a hot water heater, which usually has a pilot burner, which according to Kobayashi usually emits harmful carbon monoxide under a malfunction. One would be motivated to provide such a sensor arrangement as disclosed in Kobayashi with a power source such as in Chian since, as Chian discloses in paragraph [0003] some appliances (i.e. a water heater), may be difficult to use in certain circumstances due to availability of external power sources. The power management system of Chian would address this issue for a water heater sensor as disclosed in Kobayashi.

Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chian et al. in view of Kobayashi et al. as applied to claims 3 and 5 above, and further in view of Schuerholz (U.S. Patent Number 3,737,689). Schuerholz discloses a power conditioner (Please see the abstract).

In reference to the claims, Schuerholz discloses the use of Germanium resistors in the power converter in relation to supplying power to a system. Since both Schuerholz and Chian are concerned with providing a power source utilizing thermocouple elements, then the use of such a germanium transistor is deemed to be obvious to one of ordinary skill in the art at the time of the invention since Schuerholz discloses that the resistors are used to generate power (See column 5 lines 47 – 62).

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney T. Frank whose telephone number is (571) 272-2193. The examiner can normally be reached on M-F 9-5:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RTF
August 22, 2005


HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
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